

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend claims 1,2,5,9-12. Please add claim 16. Please cancel claims 3-8, 13-15.
All pending claims, whether or not amended, are presented below for the Examiner's
5 convenience.

1. (currently amended) An cytometer apparatus for automatically and sequentially analyzing particles in fluid samples contained in a plurality of wells in a microwell plate, or cuvettes in a rack, comprising,

10 a cytometer mounted on a shelf supported about a base, said cytometer including a suspended capillary through which sample fluid is drawn past an analyzing region where the particles are excited by a light beam to emit fluorescent light which is detected and processed to provide an analysis of the particles in the fluid, said suspended capillary extending below the shelf,

15 [A mechanism for presenting individual liquid samples carried by spaced wells in a microwell plate or cuvettes in a rack to the end of a suspended capillary comprising:]

a support tray for said supporting said microwell plate or cuvette rack,

an x, y and z drive mechanism for supporting and moving said support tray in the x, y and z-direction including,

20 x-axis drive means comprising a motor driven lead screw supported [and y-axis means functionally associated with said support tray for moving said tray in the x and y directions to bring a selected well or cuvette opposite the suspended capillary] on said base,

y-axis drive means comprising a motor driven lead screw supported and driven in the x-direction by said x-axis drive means.

25 z-axis drive means [functionally associated with said tray for moving said support tray in] supported and moved in the y-direction by said y-axis drive means, said z-axis drive

means adapted to receive said support tray and move the tray in the z direction to immerse the end of the capillary in a liquid sample carried in said wells or cuvettes, and

drive control means for controlling the z-axis drive means to lower the support tray when the support tray is moved in the x or y directions so that it can move without damaging the suspended capillary and raising the support tray to bring the liquid in a selected cuvette or microwell into cooperation with the end of the capillary.

2. (currently amended) A [mechanism] cytometer apparatus as in claim 1 in which the z-axis drive means comprises a motor driven cam.

3. (canceled)

4. (canceled)

5. (currently amended) A cytometer apparatus [system] as in claims [4] 1 or 2 including [a stirrer] mixing means carried by said shelf [adapted to stir] for stirring the liquid in a selected sample well or cuvette [container].

6. (canceled)

7. (canceled)

8. (canceled)

9. (currently amended) A [mechanism] cytometer apparatus as in claim [6] 5 in which the mixing means is adjacent the capillary and includes means for moving the [mixes] mixing means in the z direction.

10. (currently amended) A [mechanism] cytometer apparatus as in claim 6 in which the mixing means is coaxial with and surrounds the capillary.

11. (currently amended) A [mechanism] cytometer apparatus as in claim [6] 1 or 2 including means for vibrating the capillary.

12. (currently amended) A [mechanism] cytometer apparatus as in claim 1 in which the support tray includes cleaning wells for selectively receiving and cleaning the capillary.

13. (canceled)

14. (canceled)

5 15. (canceled)

16. (New) A cytometer apparatus as in claim 1 including a housing, said x-axis drive means serving to drive said y-axis, and z-axis drive means to a position where said supporting tray extends out of the housing, so that said microwell plate or cuvette rack can be loaded onto the support tray.

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